Micron® 9100 PCIe® NVMe™ SSD

PCIe | U.2 | HHHL

Dramatic Storage Performance at the Speed of Now

Deliver dramatic results to your business with the Micron® 9100—our mainstream PCIe® NVMe™ SSD. The 9100 provides workload-focused endurance and just the right capacities for both read-centric and mixed-use applications and environments.

The 9100 SSD is purpose-built to deliver data, fast—letting you process your data more efficiently. A single 9100 is up to 25X faster than an array of 24 HDDs capable of 15,000 RPM.[1] It is offered in half-height, half-length (HHHL) and U.2 industry-standard form factors in capacities up to 3.2TB.

Available in either read-centric (9100 PRO) or mixed-use (9100 MAX) classes, the 9100 provides the perfect balance of performance, endurance and price.

KEY BENEFITS

Low Total Cost of Ownership
Do more with less. The 9100 PCIe SSD accelerates data with throughput up to 10X higher than SATA and SAS SSDs.[2]

Enhanced Performance
Improve your workload performance with transfer speeds of up to 3 GB/s and write IOPS up to 300,000 (steady state).

Reliability and Quality
Protect mission-critical data with power-loss protection and data path protection features.[3]

Optimized Endurance
Choose from endurance options matched to your read-centric or mixed-use workloads.

XPERT Firmware Features
Rest easy with eXtended Performance and Enhanced Reliability Technology (XPERT) features such as power-loss protection,[3] RAIN, data path protection,[3] reduced command access latency, adaptive read and thermal protection.

WHICH APPLICATIONS ARE THE BEST FIT?

BIG DATA	CONTENT DELIVERY	DATABASE MANAGEMENT	HYPERSCALE	HIGH-PERFORMANCE COMPUTING
★★	★★★	★★★	★★	★★★

The 9100 SSD's solid performance and reliability delivers more value to your enterprise applications.

★ GOOD ★★ BETTER ★★★ BEST

SOLID PCIe

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Benefits of NVMe

Built for Nonvolatile Memory

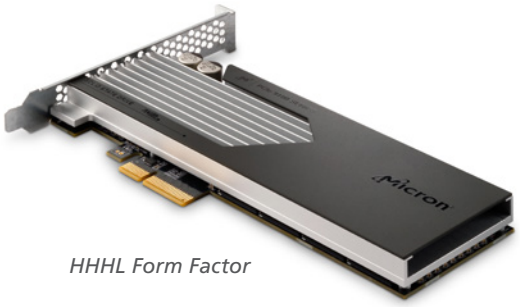
Architected from the ground-up to remove legacy layers of hard drive interfaces, taking full advantage of the speed and parallelism of solid state nonvolatile memory.

High Performance

Streamlined efficient queuing protocol combined with an optimized command set register interface enables low latency and high performance. Data is delivered fast and efficiently, with minimal burden on the host CPU.

Industry Standard

Wide adoption driven by a strong consortium of storage technology providers and a robust ecosystem of drivers across multiple operating systems.



HHHL Form Factor

U.2 Form Factor

micron.com/ssd

1. Assuming 450 random write, 4KB steady-state IOPS for widely available 15,000 RPM SAS HDDs, for an aggregate of 10,800 IOPS with 24 drives, versus a maximum of 300,000 for the Micron 9100 MAX.

2. Assuming 15,000-30,000 random write, 4KB steady-state IOPS for widely available SATA and SAS SSDs with similar endurance ratings, versus a maximum of 160,000 and 300,000 IOPS for the Micron 9100 PRO and MAX, respectively.

3. No hardware, software or system can provide absolute security under all conditions. Micron assumes no liability for lost, stolen or corrupted data arising from the use of any Micron products, including those products that incorporate any of the mentioned security features.

4. Unformatted. 1GB = 1 billion bytes. Formatted capacity is less.

5. 128KB transfer size, steady state.

6. 4KB transfer size, steady state.

Products are warranted only to meet Micron's production data sheet specifications. Products, programs and specifications are subject to change without notice. Dates are estimates only.

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Key Specifications

	U.2	HHHL
Capacity[4]	800GB, 1.2TB, 1.6TB, 2.4TB, 3.2TB	
Interface	PCIe Gen 3 NVMe	
Sequential read/write performance[5]	800GB: 2.1 GB/s/650 MB/s 1.2TB: 2.8/1.3 GB/s 1.6TB: 2.8/1.3 GB/s 2.4TB: 3.0/2.0 GB/s 3.2TB: 3.0/2.0 GB/s	
Random read/write performance[6]	800GB: 540,000/55,000 IOPS 1.2TB: 700,000/180,000 IOPS 1.6TB: 700,000/100,000 IOPS 2.4TB: 750,000/300,000 IOPS 3.2TB: 750,000/160,000 IOPS	
READ/WRITE latency	120µs / 30µs	
Active power consumption	800GB: 7–16W (TYP) 1.2TB, 1.6TB: 7–21W (TYP) 2.4TB, 3.2TB: 7–27W (TYP) Unlimited, 25W and 20W limiting available	
Idle power consumption	7W	
Operating temp	0°C to 85°C	
Dimensions	100.5 x 69.85 x 15mm	167.65 x 18.74 x 68.89mm
Power-loss protection	Yes	
Extended Features	eXtended Performance and Enhanced Reliability Technology (XPERT) suite of performance and data protection algorithms	

Base Part Numbers

Standard Part	Capacity	Form Factor
MTFDHAL800MCE-1AN1ZABYY	800GB	U.2
MTFDHAL1T2MCF-1AN1ZABYY	1.2TB	U.2
MTFDHAL1T6MCE-1AN1ZABYY	1.6TB	U.2
MTFDHAL2T4MCF-1AN1ZABYY	2.4TB	U.2
MTFDHAL3T2MCE-1AN1ZABYY	3.2TB	U.2
MTFDHAX800MCE-1AN1ZABYY	800GB	HHHL
MTFDHAX1T2MCF-1AN1ZABYY	1.2TB	HHHL
MTFDHAX1T6MCE-1AN1ZABYY	1.6TB	HHHL
MTFDHAX2T4MCF-1AN1ZABYY	2.4TB	HHHL
MTFDHAX3T2MCE-1AN1ZABYY	3.2TB	HHHL